

REMARKS

The present application includes claims 1-3, 5-7, 10-12, 14-17, 20, 28-30, 32-33, 37-38, and 40-44. Claims 1-3, 5-7, 10-12, 14-17, 20, 28-30, 32-34, 37-38, 40-44 and 51-52 have been rejected. Claims 7-15, 34-42, and 45-53 are cancelled. By this response, claims 1, 16, 20, 28 and 43 have been amended. New claims 54-55 have been added.

The Applicant is setting aside those claims relating more generally to communications data between the imaging system and the remote terminal and is focusing on the medical image data communication in order to expedite allowance of these claims. However, the Applicant reserves the right to pursue the canceled claims and other embodiments of the present invention in further continuing applications.

Therefore, the Applicant submits that the Examiner's objections to the specification and specifically to now cancelled claims 10 and 37 should be withdrawn.

By this Response, independent claims 1, 16, 20, 28, and 43 have been amended to further specify that processing (whether pre- and/or post- processing) is done at the remote terminal according to preferences and control of an operator at the remote terminal. Thus, as explained in the specification, the systems and methods allows control of imaging operation and processing by a remote operator, such as a remote specialist, rather than only the onsite technician. Furthermore, processing is customized to the preferences and controls of the particular operator at the remote terminal rather than

being bound by the preferences and controls of an operator at the medical imaging system. Additionally, the claims have been amended to highlight that the unprocessed medical imaging data is not pixel data viewable in image form. Only after processing and scan converting is the data in a pixel form viewable as a medical image. As will be discussed further below, the cited art of record transmits a medical image in viewable pixel form, through an email, HTML file or otherwise, to a remote viewer.

New claim 54 has been added to depend from the system of claim 1, further specifying that the commands sent from the remote terminal to the medical imaging system control at least one of pre-processing functions and post-processing functions of the medical imaging system. New claim 55 has been added to depend from the system of claim 1, further specifying that the operator at the remote terminal has the same control of the medical imaging system as a user at the medical imaging system.

For at least these reasons, the Applicant submits that the pending claims should be allowable over the cited art of record.

Claim Rejections - 35 USC § 102(e)

Claims 7 and 34 have been rejected under 35 U.S.C. 102(e) as being anticipated by Killcommons (U.S. Patent No. 6,525,996).

Since claims 7 and 34 have been cancelled, the Applicant is reserving the right to address this rejection at a later date but submits that the rejection should be withdrawn as moot.

However, to the extent that the Examiner's definitions impact the remaining analysis, the Applicant notes that a "command" as used herein refers to a command related to image acquisition and/or processing, not a command from a browser enhancement module of a web browser to a server to email selected data to a user unit. Additionally, the Applicant notes that encoding viewable image pixel data in a standard DICOM format so that it can be stored and transmitted according to accepted protocols does not constitute either pre-processing or post-processing of the medical image data.

Claim Rejections - 35 USC § 103

Claims 1-3, 5-5, 10-12, 14-17, 20, 28-30, 32-33, 37-38, 40-44, and 51-52 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Killcommons (U.S. Patent No. 6,424,996) in view of Groezlinger (U.S. Patent No. 6,101,407).

The Applicant refers the Examiner to and incorporates by reference, his prior responses explaining Killcommons. As stated previously and echoed by the Examiner, Killcommons fails to teach or suggest many aspects of the independent and dependent claims of the present application. For example, Killcommons transmits only medical image data that is already viewable and in pixel form (see, e.g., col. 3, line 31 – col. 4, line 22 and col. 9, line 42 – col. 10, line 57). The only operation performed on the image pixel data is to make sure that the data is transmitted in DICOM format to help ensure compatibility with other systems (col. 7, lines 44-51). As discussed above, this is neither pre- nor post-processing as described in the present application. The DICOM encode

instead acts on image data that was presumably processed at the medical imaging system and thus suffers from the deficiency that remote specialists or other operators cannot personalize the processing of the raw image data for display.

Thus, the user machine does not control the server to process image data but rather simply instructs the server to compile the processed and viewable image data into an email for transmission to the user machine (col. 5, lines 6-22).

In acknowledgement, the Examiner has added Groezlinger to her analysis in an attempt to remedy the deficiencies of Killcommons with respect to the pending claims.

However, Groezlinger relates to remotely viewing and configuring output of medical images in the form of image pixel data (see, e.g., Abstract, col. 1, lines 22-26, col. 2, lines 16-56, col. 3, lines 48-52). That is, the medical imaging system processes the data to form an image which is *then* inserted into an HTML document for transmission. As in Killcommons, which assembles an *image* into an email, the image data is already processed and in pixel form for viewing when it is sent from the imaging system to a remote viewer. Neither Groezlinger nor Killcommons transmit raw, unprocessed image data for processing to a remote terminal. Neither Groezlinger nor Killcommons allow a remote operator to have control to dictate how unprocessed image data is processed. In both Groezlinger and Killcommons, whatever techniques applied to the image at the remote unit, those techniques are applied to already-processed, viewable medical images rather than unprocessed medical image data which can be processed and scan converted

into a viewable image. As described in the present application and its pending claims, such processing (e.g., pre-processing to calculate and apply mathematical functions to transform the raw data to image data, etc., and/or post-processing to apply B-compression, dynamic range adjustment, intensity threshold, etc.) and scan converting (e.g., converting into pixel image data) is accomplished at a remote terminal to allow a particular remote user to have control rather than resting the processing control with the user obtaining the medical image data at the medical imaging system. While the examples from the present application do not represent an exhaustive list and are merely illustrative, they clearly represent the difference between the system and methods currently claimed and the systems and methods of the cited art of record. The control of medical imaging system acquisition and processing provided to an operator at a remote terminal as claimed in the present application is also clearly different and patentably distinct from the remote requests for images in email or HTML form sent in the cited art of record.

For at least these reasons, the Applicant submits that pending claims 1-3, 5-6, 16-17, 20, 28-30, 32-33, 43-44, and 54-55, as amended, should be allowable over the cited art of record.

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CONCLUSION

The Applicant respectfully submits that the application is in condition for allowance. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 070845.

Respectfully submitted,

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